

Module

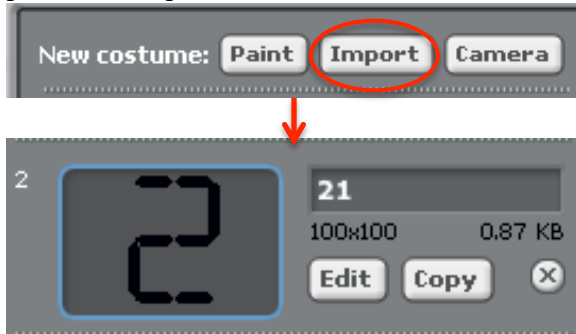
Game Effects: Countdown Clock

Here you are going to create a timed Countdown Clock.

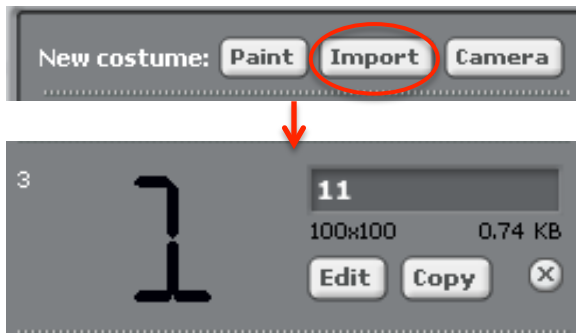
Start by creating a new Costume with the number 3 in it ("Choose new sprite from file -> Letters -> *pick any folder* -> '3' -> OK):



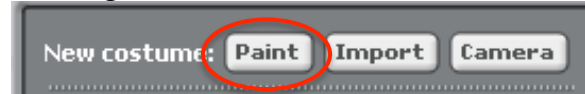
Click the 'Import' button and repeat the previous step for the number '2' Costume:



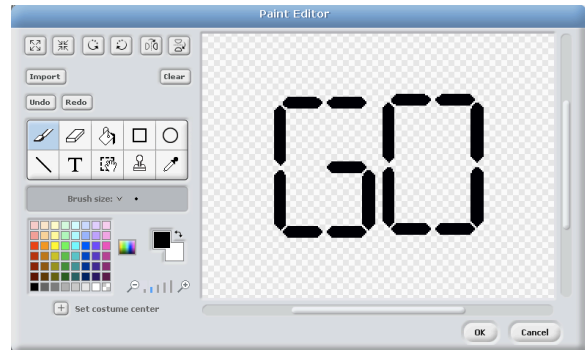
Repeat the previous step to create the number '1' Costume:



Paint a new Costume within the same Sprite to create the word 'GO'. Start by clicking the 'Paint' button:



In the Paint Editor window, 'Import' the letters 'G' and 'O' to the same Canvas.



In the Scripts area, start by having the number '3' appear 'when flag clicked':



Repeat the Costume swap 3 times:



Make it disappear after 'GO' appears:



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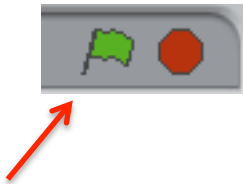
Module

Game Effects: Countdown Clock

The Stack should look like this:



Try it out – Click the Green Flag:



Want to try something else?
Trigger the Event by pressing a key:
- Replace the 'when 'flag' clicked' with 'when 's' pressed':

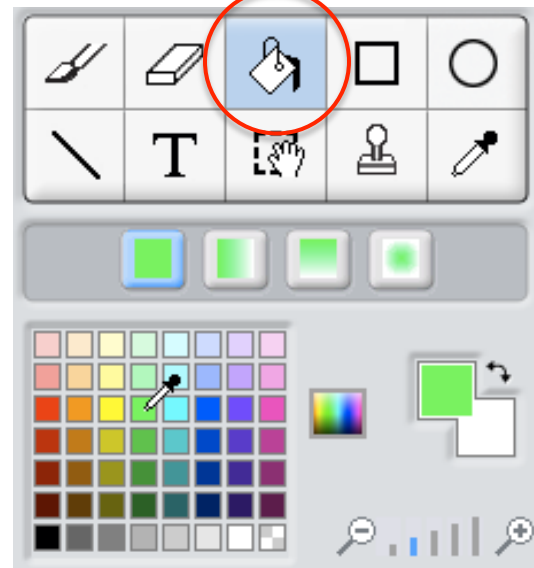


Want to try something else?
Change the color of the numbers or the word 'GO'.

- Click the 'Edit' button next to the Costume you want to change in the Costume Tab.



- Click the Fill tool and select a color that you want to use to change part of the Costume:



Change the color by clicking on the number or letter area and then click 'OK'.



Module

Game Effects: Combining Blocks and Sentences

Some Blocks store information that is useful when combined with other words. In this Module you'll take the Score from a game and put it into a sentence.

Start with a *Score* Variable:



By double-clicking on the Block you can see what value is being stored in the variable:



This Score variable has a value of zero. We want it to be higher, so use the 'set Score to 0' Block to change the value to fifteen:



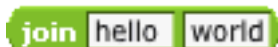
If you click on the 'flag' above the Canvas, the Score variable now has a value of 15:



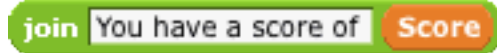
Next we want to add a 'say' Block to the Stack with the 'when flag clicked' and 'set Score to 15' Blocks:



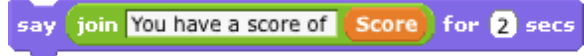
Inside the 'say' Block we can put Blocks with rounded corners like this one:



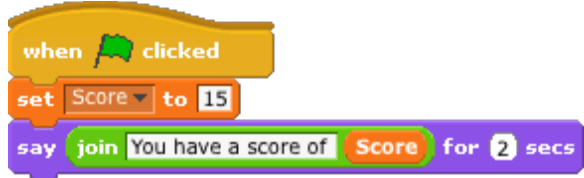
This 'join' Block lets us combine text and Blocks together into one Statement:



Take this 'join' Block and put it inside the 'say' Block:



Connect them all together and the Stack should look like this:



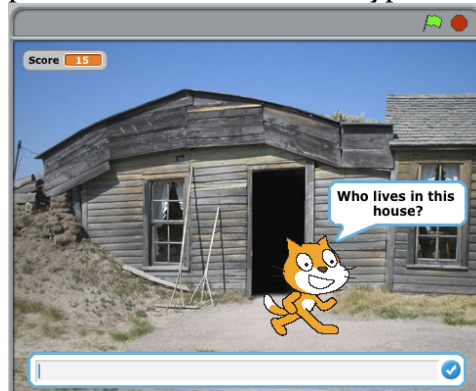
Want to try something else?

Take in user input to make the game more interactive.

Start by posing some sort of question:



Clicking on the 'Cat' Sprite results in a place where the user can type an answer:



Attach the 'say' Block to the 'ask' Block to get a response bubble:

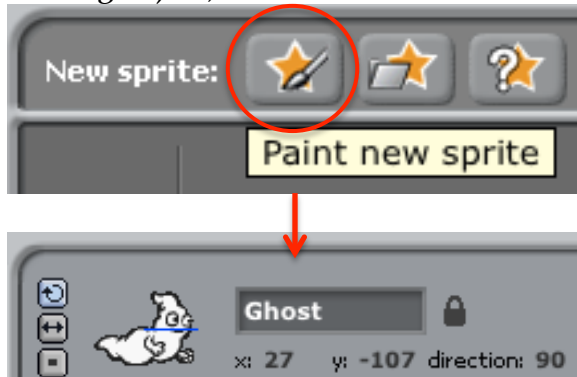


Module

Game Effects: Floating Objects

Here you are going to create a floating object.

Start by creating a new Sprite (the floating object):



Go to the Scripts area of the new Sprite:



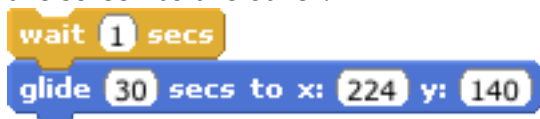
Put the object in its starting position:



If the object is too large, use the 'set size' Looks Block to reduce the size:



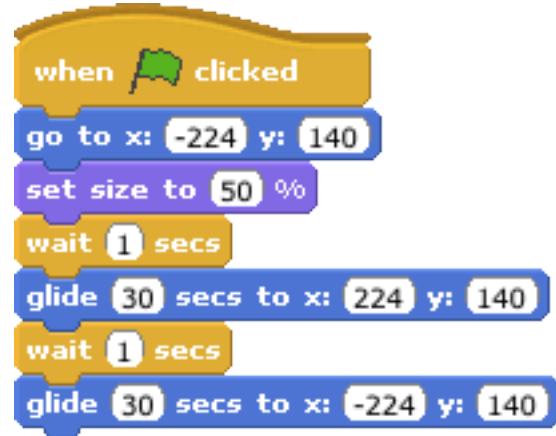
Make the object glide from one side of the screen to the other:



Then send it back to its point of origin:



Snap them all together and it should look like this:



Try it out – Click the Green Flag:



Want to try something else?

Change the path by incorporating the 'random' Block

- Pick a range of values within the appropriate quadrants to vary the trajectory:



or maybe...



Maybe it should repeat indefinitely

- Wrap the 'wait' and 'glide' blocks in a 'forever' Block:

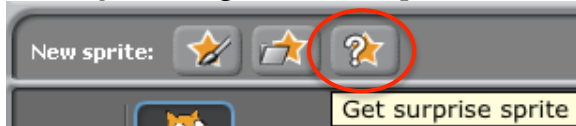


Module

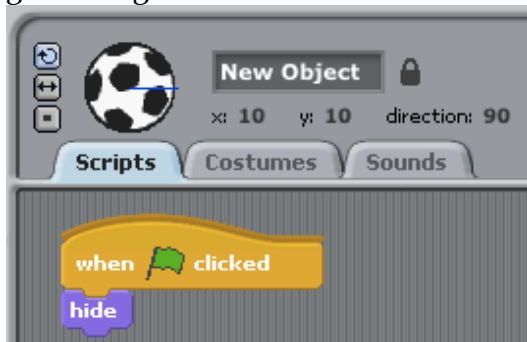
Game Effects: Generate a New Object

You are going to make a New Object randomly appear after an original Object is found (i.e. a Collision occurs between the Sprite and the original Object).

Start by creating a random Sprite:



Make this Sprite disappear when the green 'flag' is clicked:



Next, go to the Script for the Sprite that moves. Start with a Stack that responds to the Collision between the Sprite and the Object:



Then add a Broadcast message to the Stack that will be sent to the generated object:



The Stack should look like this:



Now that the Sprite and Object Collision will send the Broadcast message, go to the Script for the New Object and add the following Stack:



When the Collision occurs, the New Object will be generated!

Want to try something else?

Set a condition where the newly generated Object will disappear after a Collision between the Sprite and New Object occurs.

Start by setting the Collision condition for the Sprite and the New Object:



Next, create a Broadcast message for the New Object. This message will be used to make the New Object disappear after the collision:



Go to the Script for the New Object. The following Stack will make the New Object disappear after the Collision:



Collide with the New Object and watch it disappear!

Module

Game Effects: Jumping Sprite

Here you're going to make your Sprite jump. There are 'x' different ways for the Sprite to jump. Try them all out and see how they are different!

Simple Jump

Using a pre-existing Sprite, add the following Stack to the Script:



Pretty easy, right? Let's try a simple jump, but let's make it look smooth.

Simple Smooth Jump

Want a different jump Stack? Add this following Stack to the Script for your Sprite instead of the previous Stack:



The Sprite jumps but it always begins and ends in the same place. Let's fix it so the smooth jump happens regardless of where the Sprite is when the 'space' key is pressed.

Smooth Jump

The Smooth Jump uses the plus (+) and minus (-) operators to change the value of the y-axis. Add these Blocks to make a smooth jump:



The Sprite jumps in place but the jump itself is kind of slow. Let's make it faster.

Quick Smooth Jump

Change the duration of the 'glide' Blocks by cutting the values in half:



What would happen if you put in a value of '2' instead of '0.5'? Now that we know how to change the amount of time it takes to jump, let's adjust the height.

Smooth High Jump

Make the Sprite jump twice as high by doubling the values in the y position:



Module

Game Effects: Time and Score Bonus

A Time Bonus or a Score Bonus will be awarded to the user.

This Module requires Time and Score variables.

Time Bonus

Start with the 'when 'flag' clicked' Hat Block:



Next, create a Statement that evaluates to TRUE when the Score reaches a certain value:



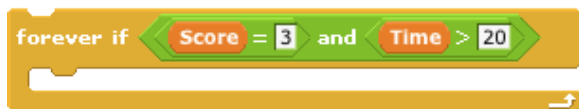
We also want a Statement that evaluates to TRUE when the Time is greater than a certain value:



Combine these two Statements into one with the 'AND' Block:



Put this 'AND' Block within a conditional Block:



Increase the value of the Time variable by changing its value with a positive number:

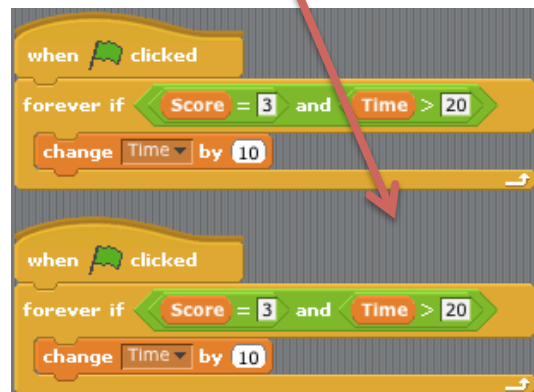
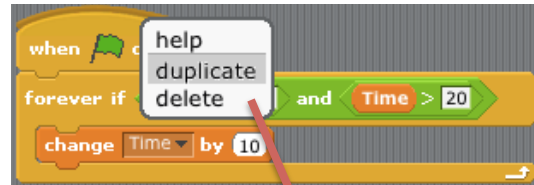


Put them all together and your Stack should look like this:

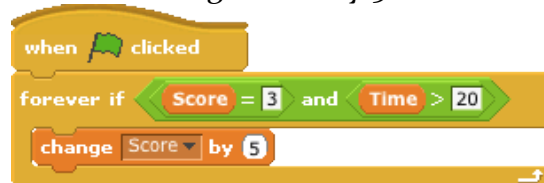


Score Bonus

Using the same two conditions as the Time Bonus, create a new Stack:



Modify the second 'change Time by 10' Block to 'change Score by 5'



-- Modification --

Put both 'change' Blocks in the same 'forever if' Block to clean up the Script:

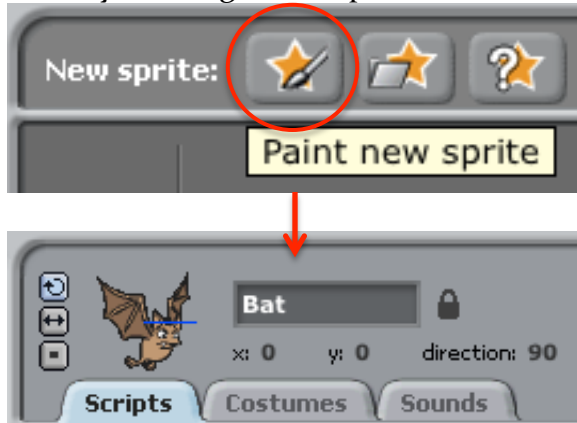


Module

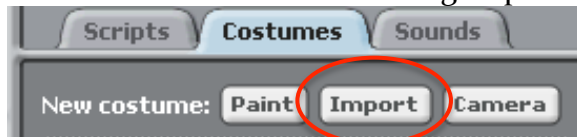
Game Effects: Flying Sprites

Here you're going to create a flying Sprite.

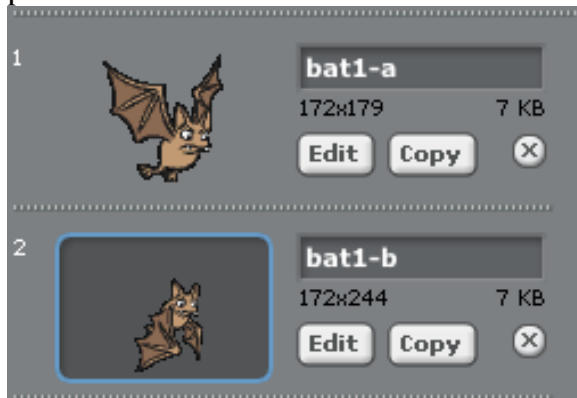
Start by creating a new Sprite:



Next, add a second Costume by clicking on the Costume tab and clicking Import:



Add the Costume that is a different position that the first Costume:



Go to the Scripts area of the new Sprite:



Put the object in its starting position:



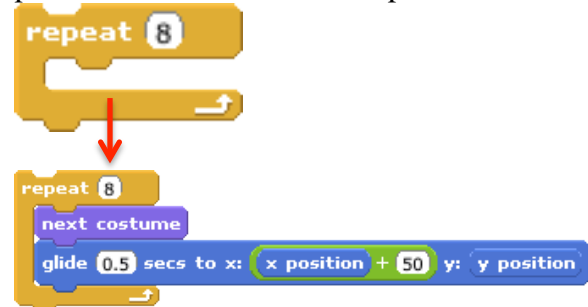
If the object is too large, use the 'set size' Looks Block to reduce the size:



Make the Sprite move and change Costume:



Repeat this action by putting the two previous Blocks inside a 'repeat' Block:



To get the Sprite back to the other side of the Stage, add the following Blocks below the repeat Block:



Think about it!

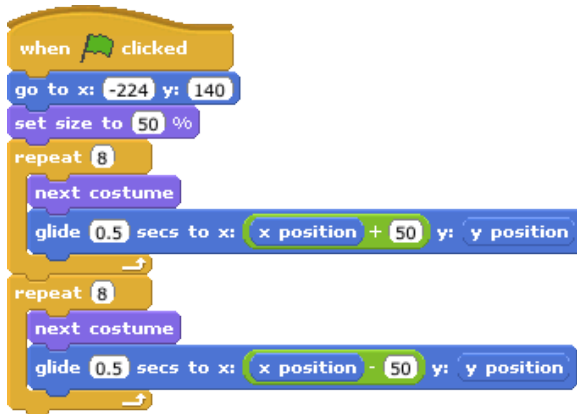
What is the difference between the mathematical operator Blocks inside the two 'repeat' Blocks? Why does it work? Look close – the arithmetic operations are different. It's pretty cool when you realize what is happening!

(OVER)

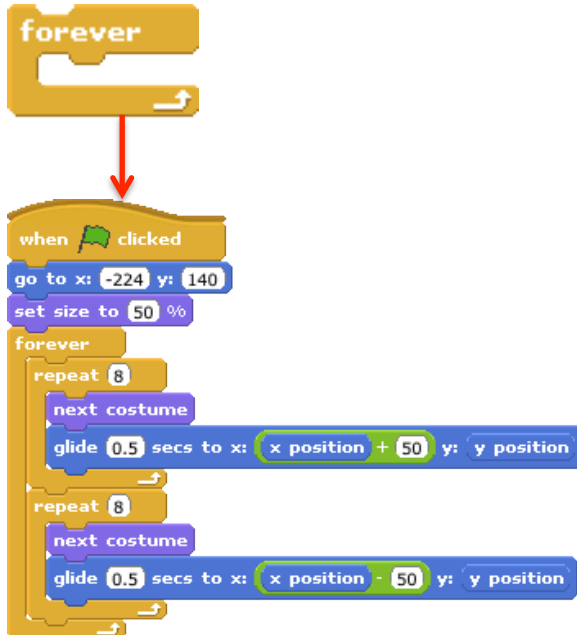
Module

Game Effects: Flying Sprites

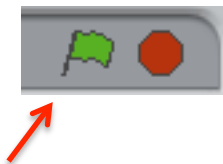
Put it all together and it should look like this:



But there is a problem, isn't there? How do we make the Sprite continue to fly back and forth? How about the 'forever' Block? Wrap the repeat Blocks in a forever Block:

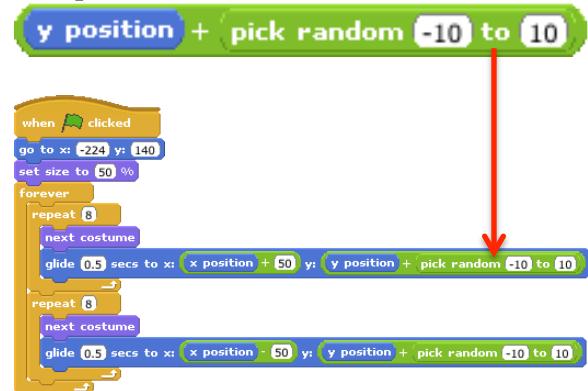


Try it out – Click the Green Flag:



Want to try something else?

Make the Sprite fly up and down a little with some variation to the movement along the y-axis with the random Block. - Add the 'pick random' Block to the y-axis position, like so:



How about making the Sprite point in the right direction? Start by keeping the Sprite from moving only left and right. Click the middle button above the Script tab:



Next, add the point in direction Blocks inside the repeat Blocks above the 'next costume' Blocks:



Right:



Left:

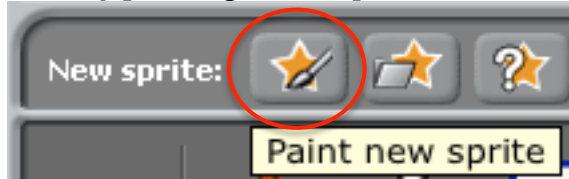
Try it out by clicking the green 'flag.'

Module

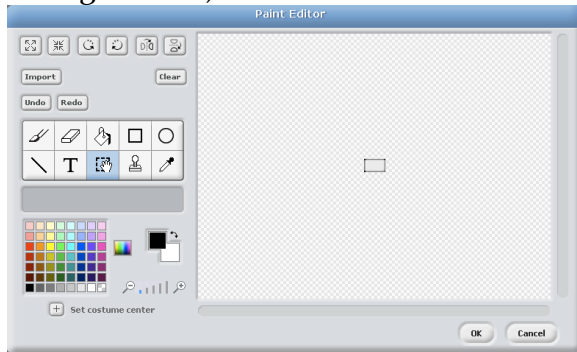
Game Effects: Start Button

You are going to add a Start Button to your game.

Start by painting a new Sprite:



Import the **button** image (found in the 'Things' folder):



Button too small? Click the 'Grow' button in the Paint Editor window to increase image size:



Add the word 'Start' to the button with the Text tool:

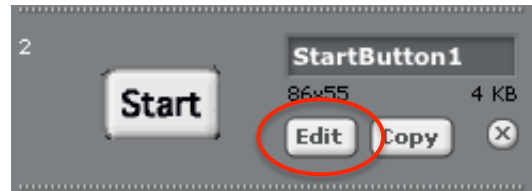


Click 'OK'.

Next, we're going to duplicate the button and edit the copied button. Start by clicking the 'Copy' button:



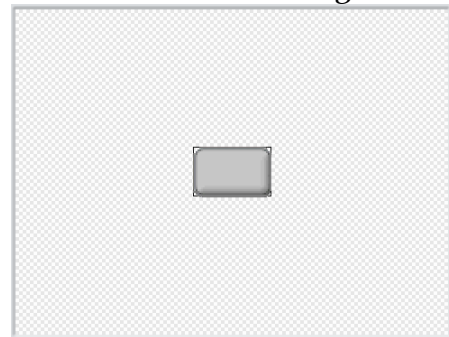
Click the 'Edit' button on the second Costume:



In the Paint Editor, click the 'Import' button (NOTE: Do Not *clear* the Canvas), go to the 'Things' folder, and import the **buttonPressed** image:



Click the 'Grow' button in the Paint Editor window to increase the size of the buttonPressed image so that it is the same as the button image:

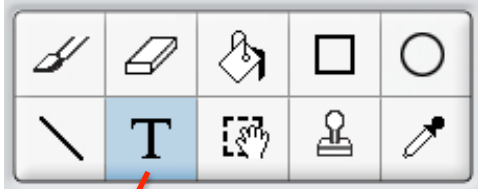


(OVER)

Module

Game Effects: Start Button

No text? Click on the Text tool button and the word 'Start' will be on top of the new image:



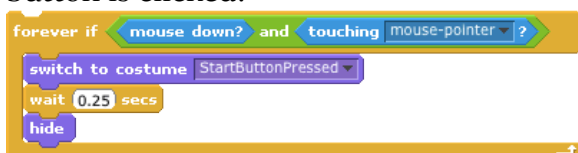
Update the Costume labels to say 'StartButton' and StartButtonPressed' for the first and second buttons:



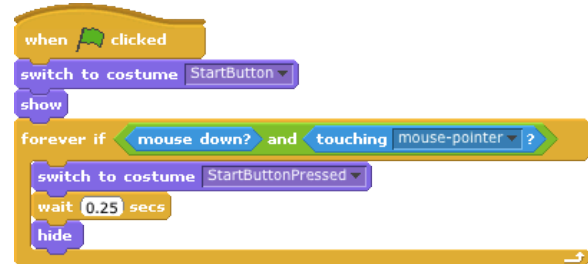
In the Script area, we're going to add a Stack that makes the Start button appear when the flag is pressed.



Add the following Blocks below the 'show' Block to switch to the StartButtonPressed Costume when the button is clicked:



The Stack should look like this:



Try it out – Click the Green Flag:



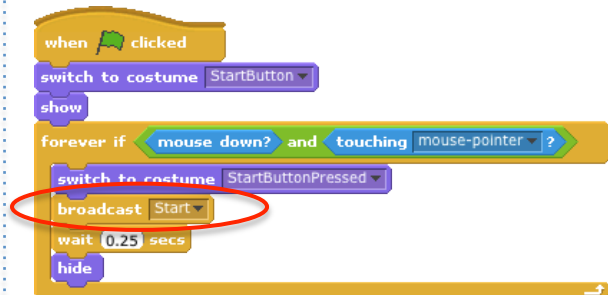
Want to try something else?

Add a 'Start' Broadcast message to make the game start when the Start button is clicked.

Create a new Broadcast message called 'Start':



Insert the Broadcast Block inside the forever if Block:



Attach the 'When I receive Start' Hat Block to a Stack you want to run after the Start button is clicked:

